

EXHIBIT C

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	CV 18-1234-GW(PLAx)	Date	December 19, 2019
Title	<i>SkyHawke Technologies, LLC v. DECA International Corp.</i>		

Present: The Honorable	GEORGE H. WU, UNITED STATES DISTRICT JUDGE
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Javier Gonzalez

Terri A. Hourigan

Deputy Clerk

Court Reporter / Recorder

Tape No.

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Attorneys Present for Defendants:

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PROCEEDINGS: *MARKMAN* HEARING

The Court's Tentative Claims Construction/*Markman* Rulings is circulated and attached hereto. Court hears oral argument. For reasons stated on the record, the *Markman* Hearing is TAKEN UNDER SUBMISSION. Court to issue ruling.

Initials of Preparer JG

: 33

SkyHawke Technologies, LLC v. DECA International Corp., Case No. 2:18-cv-01234-GW-(PLAx)
SkyHawke Technologies, LLC et al v. DECA International Corp. et al, Case No. 2:18-cv-10408-GW-(PLAx); Tentative Claims Construction/*Markman* Rulings

I. Introduction

On December 6, 2010, Plaintiff SkyHawke Technologies, LLC filed an action for patent infringement against Defendant DECA International Corp. (“DECA”) in the Southern District of Mississippi. Docket No. 1 (complaint); *see also* Docket No. 66 (currently operative amended complaint”). After some motion practice related to venue and the pleadings, the S.D. Miss. court granted a motion to stay pending reexamination proceedings before the USPTO. Docket No. 97. The case remained stayed from late 2012 to early 2017. In June 2017, soon after the Supreme Court’s decision in *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514 (2017), DECA renewed its venue challenge. DECA’s motion was initially denied, but ultimately granted on a motion for reconsideration. Docket Nos. 150, 175. The matter was transferred to this District on February 14, 2018. Docket No. 177 (Receipt of Case Transferred In). After a schedule was entered (Docket No. 205), the parties requested a stay of proceedings pending a settlement meeting. Docket No. 210. After good faith attempts at settlement were unsuccessful (Docket No. 213), a new schedule was entered in the 2:18-cv-1234 Case (“-1234 Case”) in October 2018. Docket No. 217.

Soon after in December 2018, Plaintiff filed a second patent infringement action against DECA, Golfzon Newdin Holdings Co., Ltd., and GolfzonDECA,¹ alleging infringement of additional patents. *See* 2:18-cv-10408 Case (“-10408 Case”), Docket No. 1. The parties requested additional extensions as further amended pleadings were filed in the -1234 Case (*see* Docket No. 238 (Third Amended Complaint)) and the two matters were consolidated for all pretrial purposes in a status conference held in March 2019. *See* Docket No. 266.

The parties have submitted an Amended Joint Claim Construction and Prehearing Statement.² Docket No. 295. They have also filed Opening Claim Construction Briefs (Docket

¹ Golfzon Newdin Holdings Co., LTD has since been voluntarily dismissed from the -10408 Case by means of a First Amended Complaint that did not list it as a named defendant. *See* -10408 Case, Docket No. 12. GolfzonDECA and DECA are referred to collectively herein as “Defendants.”

² *See also* Docket No. 303 (denying Plaintiff’s request to continue Markman hearing to February 2020, but permitting a short extension of claim construction deadlines).

Nos. 306, 308) and Responsive Claim Construction Briefs (Docket Nos. 312, 314). Plaintiff has also filed a Motion to Strike the declaration of Samuel P. Pullen submitted in support of Defendants' Opening Claim Construction Brief. Docket No. 313. An opposition to the motion was filed, but no reply. *See* Docket No. 317 (opposition).

A technology tutorial was held on December 5, 2019. Docket No. 321.

The Court would construe the presented disputed terms as stated herein. The Court would **DENY** Plaintiff's Motion to Strike as **MOOT** in that it has not considered the opinions offered by Pullen in connection with claim terms other than those construed herein.

II. Background

The following patents are currently asserted in this case:

- U.S. Patent No. 6,456,938 ("the '938 Patent");
- U.S. Patent No. 5,740,077 ("the '077 Patent");
- U.S. Patent No. 7,121,962 ("the '962 Patent");
- U.S. Patent No. 9,656,147 ("the '147 Patent");
- U.S. Patent No. 7,118,498 ("the '498 Patent");
- U.S. Patent No. 8,172,702 ("the '702 Patent");
- U.S. Patent No. 8,221,269 ("the '269 Patent");
- U.S. Patent No. 8,556,752 ("the '752 Patent"); and
- U.S. Patent No. 9,656,134 ("the '134 Patent").

See Docket No. 295; Docket No. 308 at 1.

A. '938 Patent ("Barnard Patent")

The '938 Patent is titled "Personal dGPS Golf Course Cartographer, Navigator and Internet Web Site with Map Exchange and Tutor." It issued on September 24, 2002. The '938 Patent's sole inventor is Kent Deon Barnard and thus both parties refer to the '938 Patent as the "Barnard Patent."

According to Defendants, Plaintiff asserts Claims 1 and 8 of the '938 Patent. *See* Docket No. 308 at 1.

Claim 1 of the '938 Patent recites:

1. A method of storing and communicating sets of topographic information to and from information processing and viewing devices by means of an accessible electronic network, each of the sets being specific to an individual golf course, comprising the steps of:

- (a) inputting a first set of information to a first information processing and viewing device, said first set of information being data representative of a golf course topography, said first set of information including data elements relating to attributes of the golf course, said data elements including at least one location for each of said attributes in the set and said first information processing and viewing device executing course-mapper software;
- (b) transmitting said first set of information from the first information processing and viewing device to the network; and
- (c) accessing said first set of information through said network with a second information processing and viewing device with autonomy from any positional equipment at the golf course, said second information processing and viewing device executing course-player software.

Claim 8 is a dependent claim that depends from Claim 1 and adds additional method steps for storing said first set of information and providing access over said network to stored sets of information.

B. The '077, '962, and '147 Patents (“Reeves Patents”)

The '147 Patent is a continuation-in-part of the '962 Patent. The '077 Patent is not related to the '962 and '147 Patents, but the three share a single common inventor, G. George Reeves. Thus, the parties refer to them as the “Reeves Patents.” The '077 Patent is titled “Golf Round Data System” and issued April 14, 1998. The '962 Patent is titled “Golf Round Data System with Cellular Telephone and Player Help Features” and issued October 17, 2006. The '147 is titled “Golf Player Aid with Stroke Result Forecasting” and issued May 23, 2017.

According to Defendants, Plaintiff asserts Claim 1 of the '077 Patent; Claim 62 of the '962 Patent; and Claims 2 and 32 of the '147 Patent. Docket No. 308 at 1.

Claim 1 of the '077 Patent recites:

1. A portable golf round data system for providing distance information to a player and for recording stroke data, comprising:
 - (a) a portable data collection unit adapted to be carried by said user including a receiver for receiving at least one external locating signal from which the user's current location on a golf course can be determined;
 - (b) course data storage in said data collection unit for storing data relating to the location of golf course features;
 - (c) a microcomputer in said data collection unit operatively connected to the receiver and to the data storage for determining a player's current location on said course from said external locating signal and for calculating distances between said current location and at least one of said golf course features retained in the said data storage;

- (d) a display on said data collection unit connected to said processor and operative to display the distance between said current location and at least one selected golf course feature;
- (e) stroke register means on said data collection unit to register each stroke taken by a user, said stroke register means being manually actuated by the user to record each stroke;
- (f) said microcomputer being responsive to said stroke register means to maintain a count of the strokes taken during a round, wherein said count is incremented each time a stroke is registered;
- (g) said microcomputer being further responsive to said stroke register means to calculate, based on said external locating signal, the location on said course from which each stroke is taken; and
- (h) stroke data storage in said data collection unit for storing the location on said course of each stroke taken until the end of play so that stroke locations can be subsequently retrieved at the end of a golf round.

Claim 62 of the '962 Patent recites:

- 62. A portable golf round data system comprising:
 - (a) a radiolocation receiver to receive at least one external locating signal from which a user's current location on a golf course can be determined;
 - (b) data storage in a data collection unit for storing course data relating to locations of one or more golf course features;
 - (c) at least one processor in said data collection unit operatively connected to said radiolocation receiver and to said data storage, said processor programmed to:
 - 1) determine said user's current location on said golf course from said external locating signal; and
 - 2) dynamically generate a graphical view of a selected portion of said golf course based on said user's current location, said dynamically generated view including a selected portion of the course and graphic indica representing the intended path or direction of the golf ball as a result of the next stroke; and
 - (d) a graphic display to display said graphical view of said selected portion of said golf course.

Claim 2 of the '147 Patent depends from Claim 1. Together, the two claims recite:

- 1. A portable golf round data system comprising:
 - a radiolocation receiver to receive at least one external locating signal from which a user's current location on a golf course can be determined;
 - data storage in a data collection unit for storing course data relating to locations of one or more golf course features;
 - at least one processor in said data collection unit operatively connected to said radiolocation receiver and to said data storage, said processor programmed to:

determine said user's current location on said golf course from said external locating signal; and
dynamically generate a graphical view of a selected portion of said golf course based on said user's current location, said dynamically generated view including a selected portion of the course and graphic indicia starting at said user's current location and representing at least one point on and along a selected path or direction corresponding to a next stroke, which said at least one point includes at least an end point of said selected path or direction; and
a graphic display to display said graphical view of said selected portion of said golf course.

2. The portable golf round data system of claim 1 wherein said graphic display is configured to show a number corresponding to a hole currently being played.

Claim 32 is another independent claim of the '147 Patent.

C. The '498, '702, '269, '752, and '134 Patents ("Meadows Patents")

The '269 and '752 Patents are continuations of the '498 Patent. The '702 and '134 Patents are continuations-in-part that also claims priority back to the '498 Patent. The parties refer to these patents as the "Meadows Patents" after the first of their named inventors, James W. Meadows. All of these patents are titled "Personal golfing assistant and method and system for graphically displaying golf related information and for collection, processing and distribution of golf related data." The '498 Patent issued December 10, 2006; the '702 Patent issued May 8, 2012; the '269 Patent issued July 17, 2012; the '752 Patent issued October 15, 2013; and the '134 Patent issued May 23, 2017.

According to Defendants, Plaintiff asserts Claims 5, 7, and 8 of the '498 Patent; Claims 1, 8, and 9 of the '702 Patent; Claims 1, 3, and 4 of the '269 Patent; Claim 1 of the '752 Patent; and Claims 7 and 10 of the '134 Patent. Docket No. 308 at 1.

Claim 5 of the '498 Patent recites:

5. An integrated handheld apparatus for measuring and displaying distances between a golfer and an object on a golf course comprising:
 - a computing device;
 - a GPS device connected to said computing device;
 - an apparatus display connected to said computing device;
 - said GPS device adapted to produce measured location information corresponding to a location of said GPS device independent of golf course infrastructure;
 - means, within said handheld apparatus, for determining a distance, independent of said golf course infrastructure, between said GPS

device and said object by using said measured location information and previously stored information concerning the location of said object; and
wherein a representation of said object is displayed on said apparatus display, as viewed from above said object, and said representation automatically rotates to orient said representation to coincide with said golfer's line of sight to said object and said integrated handheld computing device is adapted to selectively display said distance on said apparatus display.

Claims 7 and 8 are dependent claims that depend from Claim 5 of the '498 Patent.

Claim 1 of the '702 Patent recites:

1. A handheld apparatus for displaying a graphic representation of a golf course, comprising:
 - a location measuring device configured to obtain location information corresponding to a location of the handheld apparatus;
 - a memory configured to store location information corresponding to each of a plurality of features of the golf course;
 - a processing device connected to the location measuring device and the memory, and configured to retrieve a subset of the plurality of features of the golf course based on the measured location information generated by the location measuring device; and
 - a display connected to the [processing] device and configured to display a graphic representation of the retrieved subset of the plurality of features of the golf course, wherein
 - the subset of the plurality of features includes a virtual shot path, and the display is configured to display the virtual shot path in the graphic representation of the hole as a line extending from a first point of the hole to at least a second point of the hole, and
 - at least one of the subset of the plurality of features intersects the virtual shot path, and the display is configured to display a distance from a point on the virtual shot path to at least a first intersection point of the at least one of the subset of the plurality of features.

Claims 8 is another independent claim of the '702 Patent, which Claim 9 depends from.

Claim 1 of the '269 Patent recites:

1. An integrated handheld apparatus for graphically displaying an object on a golf course to a golfer comprising:
 - a computing device;
 - a location measuring device connected to said computing device;
 - an apparatus display connected to said computing device;
 - said location measuring device adapted to produce measured location information corresponding to a Location of said location measuring device; and

wherein said measured location information is used to display a representation of said object on said apparatus display, as viewed from above said object, and said representation automatically rotates to orient said representation to coincide with said golfer's line of sight to said object.

Claims 3 and 4 are dependent claims that depend from Claim 1 of the '269 Patent.

Claim 1 of the '752 Patent recites:

1. A handheld apparatus comprising:
 - a computing device;
 - a location measuring device connected to the computing device that generates measured location information corresponding to a location of the handheld apparatus;
 - a display connected to the computing device, wherein the measured location information is used to display a representation of an object on that display, as viewed from above the object, and the representation automatically rotates to orient the representation to coincide with the handheld apparatus' line of sight to the object.

Claim 7 of the '134 Patent is a dependent claim that depends from Claims 1 and 6.

Together, the three claims recite:

1. A handheld apparatus for displaying a graphic representation of a golf course, comprising:
 - circuitry configured to:
 - determine location information corresponding to a location of the handheld apparatus;
 - store location information corresponding to each of a plurality of features of the golf course;
 - retrieve a subset of the plurality of features of the golf course based on the determined location information;
 - determine a distance between the handheld apparatus and a target object based on a latitude and longitude position of the handheld apparatus and a latitude and a longitude position of the target object;
 - determine an elevation difference based on an altitude of the handheld apparatus and an altitude of the target object;
 - calculate an effective distance from the handheld apparatus to the target object based on the latitude, longitude, and altitude of the handheld apparatus and the latitude, longitude, and altitude of the target object and a weighting factor determined based on the determined elevation difference;
 - and
 - control a display to display a graphic representation of the retrieved subset of the plurality of features of the golf course and an indication of the effective distance between

the handheld apparatus and the target object.

6. The handheld apparatus of claim 1, wherein the subset of the plurality of features correspond to a green.

7. The handheld apparatus of claim 6, wherein the circuitry is configured to control the display to display the subset of the plurality of features collectively as a graphic representation of the green.

Claim 10 of the '134 Patent similarly depends from Claim 1 and recites:

10. The handheld apparatus of claim 1, wherein the circuitry is configured to control the display to automatically rotate to orient said representation to coincide with a golfer's line of sight, as viewed from above, from the handheld apparatus to the target object.

III. Legal Standard

A. Claim Construction Generally

Claim construction is an interpretive issue “exclusively within the province of the court.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). It is “a question of law in the way that we treat document construction as a question of law,” with subsidiary fact-finding that is reviewed for clear error. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S.Ct. 831, 837-40 (2015). The claim language itself is the best guide to the meaning of a claim term. *See Vederi, LLC v. Google, Inc.*, 744 F.3d 1376, 1382 (Fed. Cir. 2014). This is because the claims define the scope of the claimed invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). But a “person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent.” *Id.* at 1313. Thus, claims “must be read in view of the specification,” which is “always highly relevant to the claim construction analysis.” *Phillips*, 415 F.3d at 1315 (internal quotations omitted).

Although claims are read in light of the specification, limitations from the specification must not be imported into the claims. *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009). “[T]he line between construing terms and importing limitations can be discerned with reasonable certainty and predictability if the court’s focus remains on understanding how a person of ordinary skill in the art would understand the claim terms.” *Phillips*, 415 F.3d at 1323.

The prosecution history is “another established source of intrinsic evidence.” *Vederi*, 744 F.3d at 1382. “Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent.” *Phillips*, 415 F.3d at 1317 (citations omitted). “Furthermore, like the specification, the prosecution history was created by the patentee in

attempting to explain and obtain the patent.” *Id.* “Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.*

Claim construction usually involves resolving disputes about the “ordinary and customary meaning” that the words of the claim would have had “to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312-13 (internal quotations and citations omitted). But in some cases, claim terms will not be given their ordinary meaning because the specification defines the term to mean something else. “[A] claim term may be clearly redefined without an explicit statement of redefinition,” so long as a person of skill in the art can ascertain the definition by a reading of the patent documents. *Id.* at 1320; *see also Trustees of Columbia Univ. in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1364 (Fed. Cir. 2016).

Where the patent itself does not make clear the meaning of a claim term, courts may look to “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean,” including the prosecution history and “extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Phillips*, 415 F.3d at 1314 (internal quotations omitted). Sometimes, the use of “technical words or phrases not commonly understood” may give rise to a factual dispute, the determination of which will precede the ultimate legal question of the significance of the facts to the construction “in the context of the specific patent claim under review.” *Teva*, 135 S. Ct. at 841, 849. “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314. “In such circumstances, general purpose dictionaries may be helpful.” *Id.*

B. Means Plus Function Claim Terms

A claim limitation may also be phrased as “a means or step for performing a specified function without the recital of structure, material, or acts in support thereof.” 35 U.S.C. § 112, ¶ 6; 35 U.S.C. § 112(f).³ Such limitations “shall be construed to cover the corresponding structure,

³ Section 112 ¶ 6 was renamed as § 112(f) by the America Invents Act, Pub. L. No. 112-29, which took effect on September 16, 2012. The asserted patents have priority dates to applications filed before the Act took effect. As such, the Court refers to the § 112, ¶ 6 nomenclature in considering § 112 issues, including means-plus-function claiming and indefiniteness.

material, or acts described in the specification and equivalents thereof.” *Id.* This “means plus function” interpretation applies “only to purely functional limitations that do not provide the structure that performs the recited function.” *Philips*, 415 F.3d at 1311. To construe a means-plus-function claim, first, “the court must first identify the claimed function.” *Williamson v. Citrix Online*, 792 F.3d 1339, 1351 (Fed. Cir. 2015). Second, “the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function.” *Id.* Structures in the specification are “corresponding structure[s]” when “the intrinsic evidence clearly links or associates that structure to the function recited in the claim.” *Id.* at 1352. If the patent does not disclose an “adequate corresponding structure, the claim is indefinite.” *Id.*; see 35 U.S.C. § 112 ¶ 2 (“a patent’s specification must conclude “with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.”); *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014) (“a patent’s claims, viewed in light of the specification and prosecution history, [must] inform those skilled in the art about the scope of the invention with reasonable certainty.”).

IV. Discussion

A. Agreed Claim Terms

The parties have not agreed upon the construction of any claim terms in dispute, beyond agreeing that certain terms are subject to § 112 ¶ 6. *Id.* at 2.

B. Disputed Claim Terms

The parties identified various terms in their Amended Joint Claim Construction and Prehearing Statement as most significant to the resolution of the case. See Docket No. 295 at 2-3. However, the parties opted to brief a different subset of claim terms. See, e.g. Docket Nos. 306, 308. Further, buried in the discussion of the ten briefed claim terms, Defendants also identify other, additional disputed claim terms that they assert should be construed in a similar fashion. For reasons of judicial economy and efficiency, and further because of the cursory nature of the arguments presented for the additional terms, the Court focuses only on the ten terms the parties opted to address in their claim construction papers. Nothing in these rulings should be interpreted as providing a determination regarding the additional claim terms cursorily raised by the parties. To the extent later events in this case reveal that disputes regarding other claim terms are critical to dispositive issues of invalidity or infringement, one or more parties may seek construction of those terms at the appropriate time and after obtaining permission of the Court based on a showing

of good cause and actual need. For the same reason, the Court declines to consider the portions of Defendants' expert declaration addressing claim terms that are not one of the ten terms the parties' agreed to brief. Plaintiff's Motion to Strike (Docket No. 313) would accordingly be **DENIED AS MOOT** in that those portions of any expert declaration beyond the parties' ten identified claim terms are not considered as part of the Court's claim construction analysis at this time.

1. "means . . . for determining a distance, independent of said golf course infrastructure, between said GPS device and said object by using said measured location information and previously stored information concerning the location of said object" ('498 Patent, Claim 5)

Plaintiff's Proposed Construction	Defendants' Proposed Construction
<p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><u>Function</u>: "determining a distance, independent of said golf course infrastructure, between said GPS device and said object by using said measured location and said object location and previously stored information concerning location of said object."</p> <p><u>Structure</u>: the claimed computing device, including the algorithmic features of Figures 8, 26B, and 26C (Steps A, Ela, Elb, E2, and E3 only).</p>	<p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><u>Function</u>: "determining a distance, independent of said golf course infrastructure between said GPS device and said object by using said measured location information and previously stored information concerning the location of said object"</p> <p><u>Structure</u>: The complete algorithm as disclosed altogether in Figs. 8, 9, and 11, and portions of Figs. 26B and 26C, and the associated portions of the specification.</p>

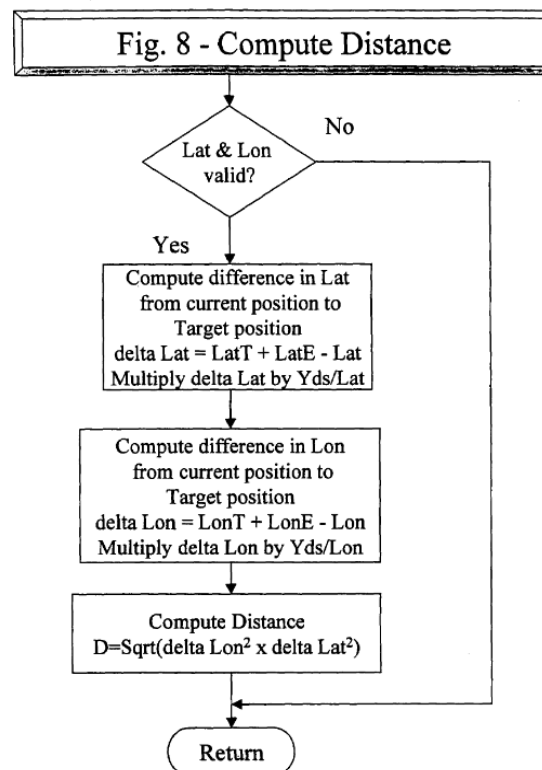
As noted, Claim 5 of the '498 Patent states:

5. An integrated handheld apparatus for measuring and displaying distances between a golfer and an object on a golf course comprising:
 - a computing device;
 - a GPS device connected to said computing device;
 - an apparatus display connected to said computing device;
 - said GPS device adapted to produce measured location information corresponding to a location of said GPS device independent of golf course infrastructure;
 - means, within said handheld apparatus, for determining a distance, independent of said golf course infrastructure, between said GPS device and said object by using said measured location information and previously stored information concerning the location of said object;* and
 - wherein a representation of said object is displayed on said apparatus

display, as viewed from above said object, and said representation automatically rotates to orient said representation to coincide with said golfer's line of sight to said object and said integrated handheld computing device is adapted to selectively display said distance on said apparatus display.

The parties agree that the “means . . . for determining a distance . . .” term is subject to § 112 ¶ 6 as a means-plus-function term. The parties also agree that the claimed function of the term is “determining a distance, independent of said golf course infrastructure, between said GPS device and said object by using said measured location and said object location and previously stored information concerning location of said object.” The parties also agree that one portion of the corresponding structure for the term is found in steps A, E1a, E1b, E2, and E3 of Figures 26B and 26C. *See, e.g.* Docket No. 308 at 13. The parties have a dispute over what constitutes another portion of corresponding structure for the term. Specifically, Plaintiff argues that only certain “algorithmic features” disclosed in conjunction with Figure 8 of the '498 Patent should also be designated as corresponding structure, while Defendants argue that the complete algorithms disclosed in conjunction with Figures 8, 9, and 11 should be designated corresponding structure.

Figure 8 of the '498 Patent “shows a flowchart of a compute distance module of one embodiment of the present invention.” '498 Patent at 5:51-52.



Id. at Fig. 8. To compute, for example, the difference in latitude (“Lat”) “from current position to target position” Figure 8 discloses using the formula “delta Lat = LatT + LatE – Lat.” The patent further defines LatE/LonE as “eFilter correction values:”

By having one or more reference points included in a pre-defined survey of known points of a golf course, a golfer can adjust for the current environmental conditions for a period of time in order to correctly determine distances to the pre-defined points of interest without requiring the use of DGPS equipment . . . the eFilter corrections of this invention are applied to a networked data set of points . . . FIGS. 8 and 9 show the flowcharts for the distance computation and eFilter adjustment processes.

Before starting play, a golfer goes to the first reference point and taps a button on his PDA to instruct the software to correct for current environmental conditions. In the simplest form, this is accomplished by comparing the current computed latitude/longitude (Lat/Lon) to the previously surveyed Lat/Lon (LatS/LonS) for the reference point and computing the difference in Lat and difference in Lon. These differences become the basis of correction values referred to herein as Latitude/Longitude eFilter correction values (LatE/LonE). As the golfer plays, if the eFilter is turned on, all target Lat/Lons (LatT/LonT) are adjusted by the eFilter correction values (LatE/LonE).

Id. at 10:59-11:19. Relatedly, Figure 11 “shows a flowchart of a tune GPS module for one embodiment of the present invention.” *Id.* at 5:5:54-55. Although Figure 11 is not further discussed in the specification, in many other places the specification discusses tunable GPS generally:

a GPS that does not use tunable GPS parameters configured for the mobile golfer can produce disappointing results. It may work fine for other applications of GPS, but not for the golf course environment . . . Several parameters have been identified that need to be tuned to produce optimal results for a specific course. These configurable parameters include position averaging, satellite elevation masking, satellite signal strength masking, carrier phase smoothing and pseudorange filtering.

Id. at 19:13-27; *see also id.* at 2:12-16 (“By applying the processes of the present invention, [long-term environmental] changes can be filtered out and the GPS tunable parameters can be set by the golfer for a specific course to produce accuracies necessary for the golf course environment.”); 2:46-49 (“This invention can be used on a variety of courses and can be adjusted for the personal mobile golfer dynamics of each course using tunable GPS parameters.”); 7:33-40 (“The personal golfing assistant of the present invention is a golfer-specific integrated system of software running on a PDA that is attached directly via attachment or module or remotely via cable, wireless link or

integrated to a GPS receiver with tunable parameters for individual mobile golfer dynamics that enables the user to engage in a process of easily surveying and/or electronically capturing geophysical data pertinent to the game of golf.”); 8:26-36 (“The golfer can also load course object data previously surveyed by the golfer or others and adjust the distance processing to correct for differences between current environmental conditions and the environmental conditions when the course was originally surveyed. This process combined with real time tunable GPS parameters that can be adjusted for the dynamics of an individual mobile golfer on a specific course enables relative distances to be computed with sufficient accuracy for golf without requiring the use of DGPS equipment.”); 17:22-37 (“In order to provide optimal performance on a golf course, the motion dynamics of a mobile golfer must be considered It is important to tune the operation of the GPS device to reduce the impact of these short-term events and at the same time quickly recover from such events.”)

Plaintiff argues that eFilter and tunable GPS are not necessary claimed functions of the term “means . . . for determining a distance, independent of said golf course infrastructure, between said GPS device and said object.” Instead, Plaintiff notes that the claim language on its face simply requires using “measured location information and previously stored information concerning the location of said object” to determine the distance. Plaintiff also argues that claim differentiation supports its position that eFilter and tunable GPS should not be included in the corresponding structure for the term. In comparison to Claim 5 of the ’498 Patent, Claim 1 independently requires “means . . . for modifying said measured location information to account for changes in environmental conditions.”

For eFilter, Plaintiff’s position ignores that Figure 8 itself requires eFilter adjustments by referring to LatE and LonE. Plaintiff’s argument would essentially require these portions of Figure 8 to be ignored, even though they are embedded in Figure 8’s calculations for the change in latitude and change in longitude. But accepting Plaintiff’s position and ignoring these portions of the Figure 8 algorithm would mean that the corresponding structure of the claim term would be effectively broadened to cover algorithms beyond Figure 8. The patent applicant could have presented an exemplary calculation of delta lat and delta lon that did not refer to LatE/LonE, but did not do so. Particularly where Plaintiff agrees that Figure 8 provides corresponding structure, Plaintiff’s position to ignore part of the Figure 8 algorithm is rejected. For the same reason, any claim differentiation presumption is overcome when it comes to eFilter.

Plaintiff urges that even if some type of environmental correction were required, it need not be eFilter because the '498 Patent discloses other options. Specifically, at the outset of the section describing eFilter adjustments, the specification states,

Space Based Augmentation Systems (SBAS) such as WAAS, EGNOS and MSAS may be used successfully a majority of time where such signals and systems are available. However, it is beneficial to have additional location correction methods to further augment such systems or to provide corrections in areas of the world where SBAS or GBAS (Ground Based Augmentation Systems) do not exist.

'498 Patent at 10:52-58. Plaintiff's argument, in addition to ignoring that Figure 8 itself specifically requires eFilter adjustments, ignores the second sentence of this excerpt from the specification setting out the basis for a discussion of eFilter. It is insufficient to change the outcome here. Further, as Defendants note, the specification does not disclose an algorithm for SBAS, meaning that there is insufficient detail in the patent specification for it to even potentially be a corresponding structure for environmental correction.

As to tunable GPS, although the patent specification is replete with examples describing tunable GPS in relation to "the present invention," the Court takes heed of the requirement that "[u]nder § 112, ¶ 6, a court may not import functional limitations that are not recited in the claim, or structural limitations from the written description that are unnecessary to perform the claimed function." *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001). Unlike the circumstance with eFilter where Plaintiff agrees that Figure 8 provides a corresponding algorithm and Figure 8 itself requires calculating LatE/LonE, Defendants have not identified a similar circumstance in the specification where tunable GPS is so ingrained in an algorithm for calculating distances between measured location and object that it cannot be extracted, and must be considered in the construction of the term.

For these reasons, the term "means . . . for determining a distance . . ." is construed as:

Subject to 35 U.S.C. § 112 ¶ 6

Function: "determining a distance, independent of said golf course infrastructure between said GPS device and said object by using said measured location information and previously stored information concerning the location of said object"

Structure: The algorithms disclosed in (1) Figs. 8 and 9 and corresponding disclosure in the specification, (2) Steps A, Ela, Elb, E2, and E3 of Figs. 26B and 26C and corresponding disclosure in the specification, and (3) equivalents thereof.

2. “adapted to produce measured location information corresponding to a location of said [GPS device] / [location measuring device]” (’498 Patent, Claim 5; ’269 Patent, Claim 1)

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>“adapted to determine and produce location information corresponding to a Location of said location measuring device”; “location measuring device” includes GPS devices and “measured location information” includes location information produced by a GPS receiver, whether pseudoranges are corrected by DGPS methods or not.</p>	<p>“adapted to produce measured location information corresponding to a location of said” according to its plain and ordinary meaning.</p> <p>“GPS device” should be construed as “device capable of accessing and producing measured location information from the Global Positioning System in real-time”</p> <p>and “location measuring device” is subject to 35 U.S.C. § 112 ¶ 6 and Indefinite for lack of disclosed structure.</p>

Again, Claim 5 of the ’498 Patent states, *inter alia*,

5. An integrated handheld apparatus for measuring and displaying distances between a golfer and an object on a golf course comprising:
- a computing device;
 - a GPS device connected to said computing device;
 - ...
 - said GPS device ***adapted to produce measured location information corresponding to a location of said GPS device*** independent of golf course infrastructure[.]

Claim 1 of the ’269 Patent states, *inter alia*,

1. An integrated handheld apparatus for graphically displaying an object on a golf course to a golfer comprising:
- a computing device;
 - a location measuring device connected to said computing device;
 - ...
 - said location measuring device ***adapted to produce measured location information corresponding to a Location of said location measuring device***[.]

Although the parties initially appeared to dispute the meaning of the overall phrase “adapted to produce measured location information,” Plaintiff does not spend much time defending its proposal of “adapted to determine and produce ~~measured~~ location information.” The Court agrees with Defendants that there does not appear to be a basis to make these changes to the plain claim language, at least on the current record. It is particularly unclear to the Court at this time what the impact of such a change would be on dispositive issues in the case such as infringement

and invalidity.

The parties also seem to generally agree on the meaning of “GPS device.”⁴ Defendants argue that the parties have a dispute over whether the claimed “GPS device” must be able to produce measured location information in real time. *See* Docket No. 314 at 5. Plaintiff does not address the issue in either its opening or responsive claim construction brief. As Defendants note, however, Plaintiff’s expert agreed during deposition that the GPS device must operate “[a]t least near real time . . . it should not be so slow that it impairs the pace of the game.” *See* Deposition Transcript of Guy M. Rodgers, Docket No. 308-2 at 93:21-94:1. Similarly, the patent emphasizes GPS updates in real time. ’498 Patent at 7:54-57 (“A golfer may, if so desired, easily survey additional points during the normal course of play in real time and then immediately use that data.”).

Regarding the term “location measuring device,” the Court agrees with Defendants that it is subject to § 112 ¶ 6. “Device” is a common nonce word that is not necessarily known as connoting structure. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1350 (Fed. Cir. 2015) (“Generic terms such as ‘mechanism,’ ‘element,’ ‘device,’ and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the word ‘means’ because they ‘typically do not connote sufficiently definite structure’ and therefore may invoke § 112, para. 6.” (citation omitted)). The adjective “location measuring” simply describes the function to be performed, without necessarily providing any further information about the appropriate structure.

Claim 1 of the ’269 Patent recites the claimed function for the term as “adapted to produce measured location information corresponding to a Location of said location measuring device[.]”⁵ In its responsive claim construction brief, Plaintiff refers to a portion of the patent specification and asserts that it discloses various “GPS receivers appropriate for the measured-location task.” *See* Docket No. 312 at 10. Specifically, in describing GPS units that can be “programmable and configurable” with tunable GPS parameters, the patent states: “Any GPS unit that is programmable and configurable with the required parameters may be used. These include, but are not limited to,

⁴ Neither party argues that the term “GPS device” is subject to § 112 ¶ 6, and the Court therefore finds such a position waived. It will not be addressed.

⁵ The term “location measuring device” also appears in other asserted claims, including Claims 1 and 8 of the ’702 Patent. However, the term as it appears in those claims was not identified as a top ten term for construction, and the corresponding function(s) in those claims is not addressed or considered here.

Magellan GPS for Palm V and Handspring Visor series, GeoDiscovery Geode, BAE Systems AllStar, Garmin, Trimble and Rockwell GPS units with RS-232 interface.” ’498 Patent at 19:16-22. Plaintiff states, “these commercially-available devices contain the needed algorithmic structure a POSA [(“Person of Skill in the Art”)] would know how to implement.” Docket No. 312 at 10. Defendants argue that the term is indefinite because there is no corresponding algorithm disclosed in the patents for “obtaining, producing, and/or generating (measured) location information.” Docket No. 314 at 5.

The requirement that a disclosed structure must include an algorithm applies when “the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm.” *Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (quoting *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)). In that case, “the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.” *Id.* Here, the patent discloses and discusses devices with GPS capability in general as capable of producing measured location information. The Court agrees with Defendants that in instances where the patent specification does not identify particular GPS devices, such that a computer or microprocessor would be used to satisfy the corresponding structure, the specification would need to disclose a corresponding algorithm. However, the Court agrees with Plaintiff that disclosure of an algorithm is not necessary where the patent discloses corresponding structure that is not simply a computer or microprocessor. Here, for instance, the patent’s disclosure of “Magellan GPS for Palm V and Handspring Visor series, GeoDiscovery Geode, BAE Systems AllStar, Garmin, Trimble and Rockwell GPS units with RS-232 interface” constitutes sufficient corresponding structure for these known GPS devices, making it unnecessary for the specification itself to disclose an algorithm for these devices on top of that.⁶ ’498 Patent at 19:16-22.

As discussed herein, the Court finds no construction necessary for the larger term “adapted to produce measured location information corresponding to a location of said [GPS device] / [location measuring device]” and the smaller term “GPS device” (with the proviso that the claimed

⁶ The Court acknowledges that in the portion of the patent specification specifically disclosing these exemplary devices, the specification does not refer to the claimed function of “produc[ing] measured location information corresponding to a location of said location measuring device.” However, because the patent specification consistently acknowledges that GPS devices as a general category satisfy this function, the Court finds that logically this listing of specific GPS device brands is sufficiently and clearly linked to the claimed function.

“GPS device” must be able to produce measured location information in real time or close to it).

The term “location measuring device” is construed as:

Subject to 35 U.S.C. § 112 ¶ 6

Function: “adapted to produce measured location information corresponding to a Location of said location measuring device”

Structure: Magellan GPS for Palm V and Handspring Visor series, GeoDiscovery Geode, BAE Systems AllStar, Garmin, Trimble and Rockwell GPS units with RS-232 interface or equivalents thereof.

3. “line of sight” (’498 Patent, Claim 5; ’269 Patent, Claim 1; ’752 Patent, Claim 1; ’134 Patent, Claim 10)

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“the perspective view along at least one of (A) a line or segment constructed from the user’s location or viewpoint to a selected object or (B) the angle to the object from the user’s perspective, measured from, e.g., North or other standard or beginning orientation”	“the perspective-view of the user, excluding any heading-based displays”

Claim 5 of the ’498 Patent recites:

5. An integrated handheld apparatus for measuring and displaying distances between a golfer and an object on a golf course comprising:
- a computing device;
 - a GPS device connected to said computing device;
 - an apparatus display connected to said computing device;
 - ...
- wherein a representation of said object is displayed on said apparatus display, as viewed from above said object, and said representation automatically rotates to orient said representation to coincide with said golfer’s line of sight to said object and said integrated handheld computing device is adapted to selectively display said distance on said apparatus display.

The other claims that include the “line of sight” claim phrase also include similar surrounding claim language. *See, e.g.* ’269 Patent at Claim 1 (“wherein said measured location information is used to display a representation of said object on said apparatus display, as viewed from above said object, and said representation automatically rotates to orient said representation to coincide with said golfer’s line of sight to said object.”); ’752 Patent at Claim 1 (substantially similar to

Claim 1 of the '269 Patent, but referring to “the handheld apparatus’ line of sight to the object”); '134 Patent at Claim 10 (“The handheld apparatus of claim 1, wherein the circuitry is configured to control the display to automatically rotate to orient said representation to coincide with a golfer’s line of sight, as viewed from above, from the handheld apparatus to the target object.”).

The parties appear to agree that “line of sight” as used in these claims does not refer to “heading-based” views based on cardinal directions. That is, for instance, views that are always aligned with north being up, south being down, east being right, and west being left. *See* Docket No. 312 at 7. Instead, the parties agree (and the claim language itself requires) that the display must be able to rotate the view so that it can align with the golfer’s or device’s line of sight and not stay locked on standard headings, such as compass headings.

The parties dispute whether “line of sight” views can include two-dimensional “plan” views directly looking down, or whether they must have a three-dimensional “perspective” component. Plaintiff observes that the Meadows Patents specifications include figures showing two-dimensional plan views that are rotated based on a user’s line of sight:

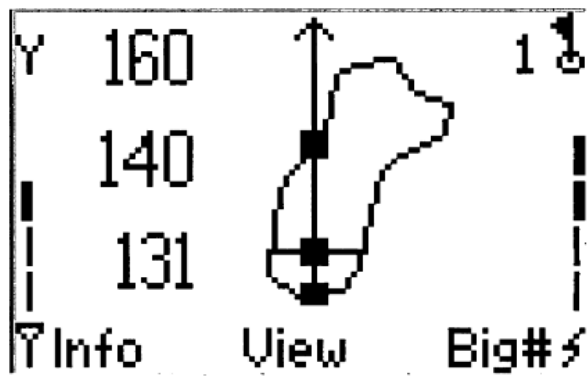


FIG. 26A

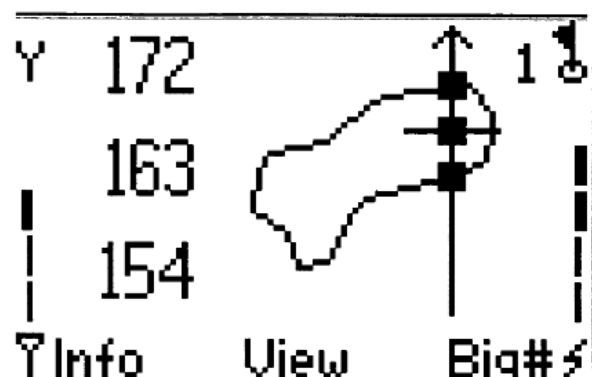


FIG. 27A

'498 Patent at FIG. 26A, 27A. The specifications further explain that Figures 25 and 26 “illustrate[] one embodiment of a screen display, *from the user’s perspective*.” *Id.* at 23:10-11 (emphasis added). In other words, the patent specification does not use the phrase “from the user’s perspective” in the strict, three-dimensional sense urged by Defendants, but simply to refer to orienting the display to match which direction the user is facing, whether using a three-dimensional or two-dimensional perspective.

Plaintiff’s proposed construction is confusing and difficult to follow. It is unclear whether

Plaintiff is seeking to incorporate other concepts into its proposal that have not been discussed herein. Defendants' proposal, meanwhile, is rejected as unnecessarily narrow. The Court is not persuaded that construction of the term "line of sight" is necessary to aid the fact finder, and the term is not construed.

4. "orient said representation to coincide with said golfer's line of sight to said object" ('498 Patent, Claim 5; '269 Patent, Claim 1; '752 Patent, Claim 1)

Plaintiff's Proposed Construction	Defendants' Proposed Construction
"arrange the object representation to coincide with the user's line of sight to the object"	"reposition the representation of the object to show the object as it would appear from the golfer's perspective-view, excluding any heading-based display"

The parties also have a dispute over the meaning of the phrase "orient said representation to coincide with said golfer's[/the handheld apparatus'] line of sight to said[/the] object," which includes some of the surrounding claim language compared to the previous "line of sight" term. The parties' dispute for this term appears derivative of their dispute for "line of sight." *See* Docket No. 312 at 7 (recognizing same); Docket No. 314 at 3 (recognizing same). The Court again rejects Defendants' argument that two-dimensional plan views must be excluded from the meaning of this phrase. *See* '498 Patent at FIGS. 26A, 27A. The term "orient said representation to coincide with said golfer's[/the handheld apparatus'] line of sight to said[/the] object" is not construed.

5. "intended path or direction of the golf ball as a result of the next stroke" ('962 Patent, Claim 62)

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning	"actual selected path or direction corresponding to the next stroke represented by a superimposed visual indicator, which is not a result of a hypothetical shot based on a user's past performance or a prediction of where the ball may go"

Claim 62 states, *inter alia*,

62. A portable golf round data system comprising:

- ...
- (c) at least one processor in said data collection unit operatively connected to said radiolocation receiver and to said data storage, said

processor programmed to:

- 1) determine said user's current location on said golf course from said external locating signal; and
- 2) dynamically generate a graphical view of a selected portion of said golf course based on said user's current location, said dynamically generated view including a selected portion of the course and graphic indicia representing the ***intended path or direction of the golf ball as a result of the next stroke***[.]

Defendants argue that the term “intended path or direction of the golf ball as a result of the next stroke” is subject to prosecution history disclaimer. During prosecution, the applicant distinguished the claims from a prior art reference, Fisher, by stating:

The Examiner appears to argue the graphical view is selected in Fisher based on the intended direction of the next stroke. However, selecting a view of the course based on the intended direction and generating a view including graphic indicia, such as a line, representing the intended path or direction of the ball are not the same. The Examiner may not ignore the claim limitation stating that the graphic view includes indicia representing the intended path or direction of the ball. The claim requires indicia superimposed or included in the view, not merely a view in a desired direction.

The Examiner also equates the practice shot feature of Fisher with the “intended path” limitation. Applicant notes, however, that showing the results of a hypothetical shot based on a user's past performance is not the same as showing an intended path of the ball due to the next stroke. A prediction of where the ball may go is not, for most golfers, where the golfer intends the ball to go.

'962 Patent Prosecution History, Office Action Response, June 2, 2006, Docket No. 308-5 at 24 (emphasis in original).

Defendants' opening claim construction brief selectively quotes from these excerpts of the prosecution history, omitting “[t]he Examiner appears to argue” from the first sentence to make it appear as though the patent applicant was itself asserting “the graphical view is selected in Fisher based on the intended direction of the next stroke.” Docket No. 308 at 12.

Defendants' characterizations of the prosecution history are not supported by the actual record. Further, to the extent Defendants' proposed construction actually somewhat aligns with the plain meaning of the claim phrase itself and is not redundant of other limitations already in the claim, the Court has concerns about whether Defendants' proposal would cause jury confusion or otherwise create a change in the plain meaning relevant to one of the parties' undisclosed infringement or invalidity disputes. In particular, without reading the full passage of the prosecution history and understanding the context, the phrase “which is not a result of a

hypothetical shot based on a user's past performance or a prediction of where the ball may go," and more particularly the phrase "a prediction of where the ball may go" could cause jury confusion and potentially unduly limit the scope of the claims. The claim language itself already states that it relates to the intended path "as a result of the next stroke," not as a result or calculation based on previous strokes.

The term "intended path or direction of the golf ball as a result of the next stroke" is not construed at this time.

6. "a processing device" ('702 Patent, Claims 1, 8)

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning	Subject to 35 U.S.C. § 112 ¶ 6 and Indefinite for lack of disclosed structure.

Claim 1 of the '702 Patent states, *inter alia*,

1. A handheld apparatus for displaying a graphic representation of a golf course, comprising:

...

a processing device connected to the location measuring device and the memory, and configured to retrieve a subset of the plurality of features of the golf course based on the measured location information generated by the location measuring device[.]

Claim 8 of the '702 Patent states, *inter alia*,

8. A method performed by a handheld device for displaying a graphic representation of a golf course, comprising:

...

retrieving, by *a processing device* of the handheld device, a subset of the plurality of features of the golf course based on the measured location information generated by the location measuring device[.]

The parties dispute whether the term "processing device" is subject to § 112 ¶ 6 as a means-plus-function term.

The patent specification refers to a "processing device" just once where it states:

The personal golfing assistant system of the present invention is comprised of software running on a handheld computing device such as a PDA that is attached either directly or remotely to a GPS receiver. Examples of PDA's that could be used include those manufactured by Palm, Handspring and others. Alternatively, a palmtop computer or other small *processing device*

with a display could be used.

'498 Patent at 8:48-54 (emphasis added). Plaintiff cites to the claim language itself and argues that the term “is well known structure and not a nonce means plus function; it is a structure connected to the location measuring device and memory.” Docket No. 306 at 12. However, Plaintiff’s assertion that a “processing device” is “connected to the location measuring device and memory” does not actually provide information to show that a person of skill in the art would connote the term “processing device” with a structure or class of structures. Even where in Claim 8 the claim itself clarifies that the “processing device” is “of the handheld device,” structure remains lacking. Instead, like the term “location measuring device,” the combination of the nonce word “device” with the functional word “processing” appears to essentially be equivalent to claiming a “means for processing.” See *Williamson*, 792 F.3d at 1350; see also *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1315 (Fed. Cir. 2011) (term “a processing means . . . for . . .” performing functions subject to § 112 ¶ 6.). This conclusion is further supported by Defendants’ expert, who states that “[t]he term ‘processing device’ is not a technical term of art in the field Importantly, the terms ‘processing device’ and ‘processor’ are not interchangeable, and a POSA would not have understood ‘processing device’ to mean a ‘processor,’ such as a microprocessor.” Declaration of Samuel P. Pullen in Support of Defendants’ Opening Claim Construction Brief (“Pullen Decl.”), Docket No. 308-6 ¶¶ 152-153.

The claimed function for the term “processing device” is “to retrieve” or “retrieving” “a subset of the plurality of features of the golf course based on the measured location information generated by the location measuring device.” As Defendants note, and Plaintiff does not appear to dispute, there is no algorithm disclosed in the specification for performing this claimed function. Nor is there any particular structure beyond a general-purpose computer or microprocessor disclosed as linked to performing this function. Without such disclosure, the term “processing device” is indefinite.

7. “at least one processor in said data collection unit . . .” ('962 Patent, Claim 62)

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning	Subject to 35 U.S.C. § 112 ¶ 6 and Indefinite for lack of disclosed structure.

Unlike the term “processing device,” the term “processor” “standing alone, does connote

some structure to a POSA” as “a category of general purpose computers and microprocessors.” See Pullen Decl. ¶ 264; see also *Realtime Adaptive Streaming LLC v. Google LLC, et al*, LACV 18-3629-GW-(JCx), Docket No. 84 at *24-25 (C.D. Cal. Jul. 25, 2019) (finding terms for “processor(s) configured to . . .” were not subject to 35 U.S.C. § 112 ¶ 6). Further, Claim 62 of the ’962 Patent provides for “at least one processor in said data collection unit operatively connected to said radiolocation receiver and to said data storage” and further claims what it is programmed to do.⁷

The Court is aware of “no pertinent finding that compels the conclusion that a conventional [processor] is used in common parlance as [a] substitute for ‘means.’” *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1009 (Fed. Cir. 2018). Defendants’ position is effectively that, because processors fall into a category of general purposes computers, and because means-plus-function claiming requires the disclosure of an algorithm when a claimed function for a means-plus-function term would be carried out by a computer, a claim to a “processor” necessarily is a means-plus-function term. Defendants’ position conflates the analytical steps required for the § 112 ¶ 6 inquiry. In first determining whether § 112 ¶ 6 applies, the fact that the claim requires a known, structural component programmed to perform a particular function, including a function that would require an algorithm, is not relevant. Instead, what matters is simply whether a known, structural component is claimed, or whether a generic non-structural placeholder is claimed. As a point of analytical comparison, Defendants do not provide legal authority to support that a claim reciting a “computer configured to . . .” would invoke § 112 ¶ 6. A computer, like a processor, connotes a known class of structures such that the inquiry would end without an analysis of the claimed function and corresponding patent specification disclosure. The same is true here.

The term “processor” is not subject to § 112 ¶ 6 and is not construed.

8. “data collection unit” (’077 Patent, Claim 1; ’962 Patent, Claim 62; ’147 Patent, Claims 1, 32)

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning	Subject to 35 U.S.C. § 112 ¶ 6 and Indefinite for lack of disclosed structure.

⁷ The term “processor” also appears in Claims 1 and 32 of the ’147 Patent. However, the term as it appears in those claims was not identified as a top ten term for construction and is not analyzed or addressed herein.

The term “data collection unit” appears in asserted claims in each of the Reeves Patents. *See, e.g.* ’077 Patent at Claim 1 (referring to “a portable data collection unit” and additional details of other components included in said data collection unit, including “course data storage,” “a microcomputer,” “a display,” “a stroke register means,” and “stroke data storage”); ’962 Patent at Claim 62 (“(b) data storage in a data collection unit for storing course data relating to locations of one or more golf course features; (c) at least one processor in said data collection unit”); ’147 Patent at Claim 1 (“data storage in a data collection unit for storing course data relating to locations of one or more golf course features; at least one processor in said data collection unit . . .”).

For the ’077 Patent, Claim 1 states in full:

1. A portable golf round data system for providing distance information to a player and for recording stroke data, comprising:
 - (a) a portable ***data collection unit*** adapted to be carried by said user including a receiver for receiving at least one external locating signal from which the user’s current location on a golf course can be determined;
 - (b) course data storage ***in said data collection unit*** for storing data relating to the location of golf course features;
 - (c) a microcomputer ***in said data collection unit*** operatively connected to the receiver and to the data storage for determining a player’s current location on said course from said external locating signal and for calculating distances between said current location and at least one of said golf course features retained in the said data storage;
 - (d) a display ***on said data collection unit*** connected to said processor and operative to display the distance between said current location and at least one selected golf course feature;
 - (e) stroke register means ***on said data collection unit*** to register each stroke taken by a user, said stroke register means being manually actuated by the user to record each stroke;
 - (f) said microcomputer being responsive to said stroke register means to maintain a count of the strokes taken during a round, wherein said count is incremented each time a stroke is registered;
 - (g) said microcomputer being further responsive to said stroke register means to calculate, based on said external locating signal, the location on said course from which each stroke is taken; and
 - (h) stroke data storage ***in said data collection unit*** for storing the location on said course of each stroke taken until the end of play so that stroke locations can be subsequently retrieved at the end of a golf round.

Almost the entire claim is focused on defining components of the “data collection unit.” First, the “data collection unit” is described as “portable” and “adapted to be carried by said user.” These phrases could only be applied to a component with structure. Second, the “data collection unit”

includes a “receiver,” “course data storage,” “a microcomputer,” “a display,” “stroke register means,” and “stroke data storage.”⁸ The combination of these components and their descriptions and interactions in the claim are sufficient to connote structure for the overall term “data collection unit” in this context. Similarly, the ’077 Patent specification provides information about a preferred embodiment, “data collection unit **20**,” including exemplary figures and diagrams depicting its components. *See* ’077 Patent at FIGS. 1, 2. Given this disclosure, and particularly the claim language itself, the term “data collection unit” is, in effect, lexicographically defined by the patent applicant to refer to a particular structural device with certain components. *See also* ’962 Patent at 1:51-53 (stating that ’077 Patent “uses a special purpose unit which has no other function.”).⁹ The Court finds the term connotes sufficient structure in the context of the ’077 Patent such that it is not subject to § 112 ¶ 6.

The claims of the ’962 and ’147 Patents, in comparison, require that the “data collection unit” include “data storage” and a “at least one processor.” The level of detail present in the ’077 Patent claims is otherwise lacking from the claims for the ’962 and ’147 Patents. Notably, the Reeves Patents are not all related and do not have the same disclosure. Also notably, although a significant portion of the ’077 Patent specification discusses “data collection unit 20,” the ’077 Patent is not incorporated by reference into the ’962 Patent or ’147 Patent. Indeed, the term “data collection unit” does not appear in the specification of the ’962 and ’147 Patents. Without the same surrounding context provided by the claims and specification for the ’077 Patent, the combination of the nonce term “unit” with the functional phrase “data collection” is more readily viewed as a means-plus-function claim limitation. Plaintiff emphasizes that the claims require that the claimed “data collection unit” include a “processor” in the claims of the ’962 and ’147 Patents. However, the Federal Circuit has rejected similar arguments. *See Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1373 (Fed. Cir. 2015) (rejecting patent applicant’s argument that term “compliance mechanism” was not subject to § 112 ¶ 6, including patent applicant’s argument that the specification disclosed “what structural subcomponents might

⁸ The parties did not present these terms in their top ten terms for construction, although some of them appear likely to limit the scope of these claims in very particular ways.

⁹ Aside from their argument that the term is an indefinite means-plus-function term, Defendants do not alternatively argue that the term should be limited based on the preferred embodiments disclosed in the patent specification. The Court finds that, in any event, the particular components recited in Claim 1 of the ’077 Patent appear to identify the same components of the preferred embodiment disclosed in the ’077 Patent specification.

comprise the ‘compliance mechanism.’”). Particularly where the term itself does not appear in the specification, is not commonly known as connoting a structure or class of structures, is comprised of the nonce term “unit” and functional language “data collection,” and is described in terms of the functions of just two general subcomponents in the claim language, the Court finds the term subject to § 112 ¶ 6.

The term “data collection unit” itself supports that its claimed function is data collection. The claims do not otherwise refer to additional functions for the “data collection unit” itself, but do refer to functions for the “data storage” and “processor” that are part of the claimed data collection unit. The “data storage” “stor[es] course data relating to locations of one or more golf course features” and the “processor” “determine[s] [a] user’s current location on said golf course” and “dynamically generate[s] a graphical view of a selected portion of said golf course” in a certain way. The ’962 and ’147 Patents disclose sub-components that perform these claimed functions. Namely, they are performed in the specification by a “cellular telephone handset” that is alternatively referred to as a “hand-held unit.” See ’147 Patent at 2:66-3:52, 3:53-4:35, 4:48. In other words, the claims and specification for the ’962 and ’147 Patent link the claimed functions of the “data collection unit” and its subcomponents with cellphones, a known class of structures, including as disclosed in their specifications.¹⁰ Contrary to Defendants’ position, this disclosure is sufficiently linked to the claimed functions such that the claim term is not indefinite under the second step of the § 112 ¶ 6 inquiry.

Based on the disclosure in the respective patent claims and specifications for these terms, the Court finds construction of the term “data collection unit” as it appears in the ’077 Patent is not necessary. The term “data collection unit” as it appears in the ’962 and ’147 Patents is construed as:

Subject to 35 U.S.C. § 112 ¶ 6

Function: “data collection;” “storing course data relating to locations of one or more golf course features;” “determin[ing] said user’s current location on said golf course from said external locating signal; and dynamically generat[ing] a graphical view of a selected portion of said golf course based on said user’s current location.”

¹⁰ The patent specification also includes a passage that describes exactly how the disclosed “hand-held unit” can be “loaded with course and player specific information.” See ’962 Patent at 5:46-47; *see also id.* at 5:46-6:33. Given the fact that there is no basis in the record to equate the cellular telephone described in the patent to a general purpose computer, the Court does not believe the algorithm disclosed in this passage of the specification for loading, *i.e.* “collecting,” golf course information is a necessary part of the corresponding structure for this term.

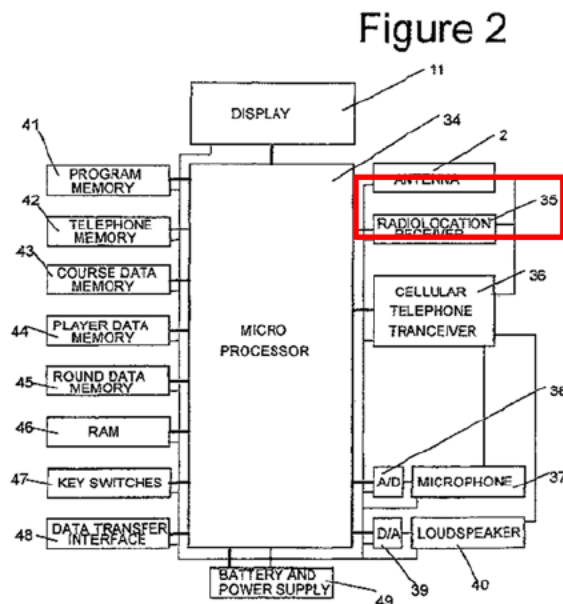
Structure: cellular telephone and equivalents thereof. *See, e.g.* '962 Patent at 2:64-4:43.

9. "radiolocation receiver" ('147 Patent, Claims 1, 32; '962 Patent, Claim 62)

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning	Subject to 35 U.S.C. § 112 ¶ 6 and Indefinite for lack of disclosed structure.

The parties also dispute whether the term "radiolocation receiver" is a means-plus-function term.¹¹ Claim 1 of the '147 Patent and Claim 62 of the '962 Patent states, *inter alia*, "a radiolocation receiver to receive at least one external locating signal from which a user's current location on a golf course can be determined." Claim 8 of the '147 Patent further adds the phrase "when said portable golf round data device is in possession of said user."

The claims themselves refer to the "radiolocation receiver" in functional terms. The patent specification depicts the radiolocation receiver as part of "a schematic block diagram of the operating components of the cellular telephone handset with graphic golf round data capability." *See* '147 Patent at 3:53-55. Specifically, Figure 2 depicts:



Id. at FIG. 2 (annotation added).

¹¹ The term "receiver for receiving . . ." also appears in Claim 1 of the '077 Patent. However, the term as it appears in that claim was not identified as a top ten term for construction and is not analyzed or addressed herein.

The specification further states:

The antenna 2 converts cellular telephone and radiolocation radio waves into electrical signals for the radio location receiver 35 and the cellular telephone transceiver 36. The radiolocation receiver 35 can be made from commercially available chip sets which process signals from the Global Positioning System; it could also be some other radio location receiver such as one based upon sensing the time delays to send signals between the handset and each of two different cellular towers.

'147 Patent at 3:59-67.

In arguing that the term does not connote sufficient structure, Defendants' expert quotes from three dictionary definitions for the word "receiver"

The *Dictionary of Computing* (Ex. 14) defines "receiver" at p. 292 in purely generic and functional terms as "electronic device that can detect transmitted signals and present them in a suitable form." *The Illustrated Dictionary of Electronics* (Ex. 22) defines "receiver" in purely generic and functional terms at p. 585 as "[a] device or system operated at the destination end of a communication link; it accepts a signal and processes or converts it for local use." The *Modern Dictionary of Electronics* (Ex. 24) defines "receiver" in purely generic and functional terms at p. 628 as "[a] device for the reception and, if necessary, demodulation of electronic signals."

Pullen Decl. ¶ 254. But contrary to Defendants' and Pullen's position, the fact that technical dictionary definitions exist for the term "receiver" that refers to it as a "device" supports that it is a term that connotes structure. Pullen also states that the term "did have a commonly understood meaning in the art at the time of the '147 and '962 Patents," although he refers to it as a "functional, not structural meaning." *Id.* ¶ 253.

This claim construction dispute is a close call, as the patent specification refers to radiolocation receivers only in a very general and open-ended way. However, like the term "processor," based on objective dictionary definitions, it appears that the term "receiver" connotes a class of structures, albeit a broad class of structures, in the art. On the current record, the Court does not find that the presumption against means-plus-function claiming has been overcome. Instead, it finds that no construction is necessary for the term "radiolocation receiver."

10. "circuitry configured to" ('134 Patent, Claims 1, 7, 10)

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning	Subject to 35 U.S.C. § 112 ¶ 6 and Indefinite for lack of disclosed structure.

Like the term “data collection unit” as it appeared in Claim 1 of the ’077 Patent, the entirety of Claim 1 of the ’134 Patent is focused on defining the components for the “circuitry configured to” claim term:

1. A handheld apparatus for displaying a graphic representation of a golf course, comprising:

circuitry configured to:

- determine location information corresponding to a location of the handheld apparatus;
- store location information corresponding to each of a plurality of features of the golf course;
- retrieve a subset of the plurality of features of the golf course based on the determined location information;
- determine a distance between the handheld apparatus and a target object based on a latitude and longitude position of the handheld apparatus and a latitude and a longitude position of the target object;
- determine an elevation difference based on an altitude of the handheld apparatus and an altitude of the target object;
- calculate an effective distance from the handheld apparatus to the target object based on the latitude, longitude, and altitude of the handheld apparatus and the latitude, longitude, and altitude of the target object and a weighting factor determined based on the determined elevation difference;
- and
- control a display to display a graphic representation of the retrieved subset of the plurality of features of the golf course and an indication of the effective distance between the handheld apparatus and the target object.

Claims 7 and 10 further define the claimed circuitry and how it is configured. ’134 Patent at Claim 7 (“The handheld apparatus of claim 6, wherein the circuitry is configured to control the display to display the subset of the plurality of features collectively as a graphic representation of the green.”); Claim 10 (“The handheld apparatus of claim 1, wherein the circuitry is configured to control the display to automatically rotate to orient said representation to coincide with a golfer’s line of sight, as viewed from above, from the handheld apparatus to the target object.”).

The Court finds this disclosure sufficient to connote structure for the term “circuitry” in the context of these claims, particularly where the terms “circuit” and “circuitry” themselves are commonly and “overwhelmingly” understood by courts to connote a class of structures, even if it is a very broad class. *Intellicheck Mobilisa, Inc. v. Honeywell Int’l Inc.*, No. C16-0341 JLR, 2017 WL 6550700, at *3 (W.D. Wash. Dec. 21, 2017); *Diebold Nixdorf, Inc. v. Int’l Trade Comm’n*,

899 F.3d 1291, 1301 (Fed. Cir. 2018) (discussing *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364 (Fed. Cir. 2003)). Although the Court acknowledges that the specification itself includes essentially no disclosure regarding “circuitry,” where the claimed “circuitry” effectively is the claimed “handheld apparatus” itself in its entirety,¹² the Court finds the claims themselves in combination with legal authority are sufficient for this claim term to avoid being subject to § 112, ¶ 6.

The term “circuitry configured to” is not construed.

V. Conclusion

The Court would **DENY** Plaintiff’s Motion to Strike as **MOOT** (Docket No. 313).

For the reasons stated, the Court would construe the disputed terms as follows:

Term	Court’s Construction
“data collection unit” (’077 Patent, Claim 1; ’962 Patent, Claim 62; ’147 Patent, Claims 1, 32)	<p>As it appears in ’077 Patent, Claim 1: No construction;</p> <p>As it appears in ’962 Patent, Claim 62 and ’147 Patent, Claims 1, 32 it is construed as:</p> <p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><u>Function</u>: “data collection;” “storing course data relating to locations of one or more golf course features;” “determin[ing] said user’s current location on said golf course from said external locating signal; and dynamically generat[ing] a graphical view of a selected portion of said golf course based on said user’s current location.”</p> <p><u>Structure</u>: cellular telephone and equivalents thereof. <i>See, e.g.</i> ’962 Patent at 2:64-4:43.</p>
“at least one processor in said data collection unit . . .” (’962 Patent, Claim 62)	No construction
“a processing device” (’702 Patent, Claims 1, 8)	Subject to 35 U.S.C. § 112 ¶ 6 and indefinite for lack of sufficient corresponding structure.

¹² The parties did not request construction of the term “handheld apparatus,” which, despite being in the preamble, might properly be considered a claim limitation itself “necessary to give life, meaning, and vitality to the claim.” *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999) (internal citation omitted). Because the parties did not raise this issue, it is not addressed.

“circuitry configured to” (’134 Patent, Claims 7, 10)	No construction
“radiolocation receiver” (’147 Patent, Claims 2, 32)	No construction
“intended path or direction of the golf ball as a result of the next stroke” (’962 Patent, Claim 62)	No construction
“line of sight” (’498 Patent, Claim 5; ’269 Patent, Claim 1; ’752 Patent, Claim 1; ’134 Patent, Claim 10)	No construction
“orient said representation to coincide with said golfer’s line of sight to said object” (’498 Patent, Claim 5; ’269 Patent, Claim 1; ’752 Patent, Claim 1)	No construction
“adapted to produce measured location information corresponding to a location of said [GPS device] / [location measuring device]” (’498 Patent, Claim 5; ’269 Patent, Claim 1)	<p>larger term “adapted to produce measured location information corresponding to a location of said [GPS device] / [location measuring device]” is not construed;</p> <p>smaller term “GPS device” is not construed;</p> <p>smaller term “location measuring device” construed as:</p> <p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><u>Function</u>: “adapted to produce measured location information corresponding to a Location of said location measuring device”</p> <p><u>Structure</u>: Magellan GPS for Palm V and Handspring Visor series, GeoDiscovery Geode, BAE Systems AllStar, Garmin, Trimble and Rockwell GPS units with RS-232 interface or equivalents thereof.</p>

<p>“means . . . for determining a distance, independent of said golf course infrastructure, between said GPS device and said object by using said measured location information and previously stored information concerning the location of said object” (‘498 Patent, Claim 5)</p>	<p>Subject to 35 U.S.C. § 112 ¶ 6</p> <p><u>Function</u>: “determining a distance, independent of said golf course infrastructure between said GPS device and said object by using said measured location information and previously stored information concerning the location of said object”</p> <p><u>Structure</u>: The algorithms disclosed in (1) Figs. 8 and 9 and corresponding disclosure in the specification, (2) Steps A, Ela, Elb, E2, and E3 of Figs. 26B and 26C and corresponding disclosure in the specification, and (3) equivalents thereof.</p>
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